**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**Developing a RDMS, p 113-119**

**In creating the database the following is carried out:**

Creating the tables and relationships

Setting up the queries

Input forms

Creating macros

**Testing the solution, p 115**

1. Why is testing carried out?

Testing is carried out so it can be ensured that all the features and functions of the database work correctly and that the information produced is free from errors.

1. Distinguish between informal and formal testing.

Formal testing is testing the overall solution after it has been completed to see if it solves the problem. This type of testing is formalised and is comprehensively documented of each test and its outcome. Informal testing on the other hand occurs during the development stage, this type of testing allows developers to constantly test to see if the solution is behaving to expectations.

1. Formal testing:
   1. Bench Test
      1. What does a bench test entail?

A bench test is part of the formal testing process. It uses sample data that was developed during the design stage to see how the solution behaves with a range of data.

* 1. Describe User acceptance testing.

User acceptance testing is when the user of the database are asked to follow a series of steps to complete a task or to interpret the information contained in the solution, and provide their feedback to the developers.

1. Testing validation
   1. Testing should test the boundaries of the validation rule. What does this mean?

This means that the test data must contain values or pieces of data that are outside of the validation rules to ensure that data that is not in the specified range is picked up on.

1. Testing the query

Testing the queries is done to ensure that they work correctly. To test a query you must create the set of data and once you have done this you must manually check the test data to identify the records that meet the criteria of the query.

1. Testing formulas

Formulas need to be tested regardless of where they located, it is a matter of choosing appropriate test data for which it is easy to determine if the final result is accurate or not.

1. During which stage of the PSM does testing take place?

Testing is performed during the development stage of the PSM.

1. Why is testing performed during this stage?

The development stage of the PSM is when the solution is tested to ensure it functions the way it is expected to. It is done at this stage because it has to be ensured it works before it is put into use by the clients.

Darcie Anderson